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Draft report of the Working Group on the Use of Nuclear Power Sources in Outer Space

1. At its [...] meeting, on [...] February 2014, the Scientific and Technical Subcommittee reconvened its Working Group on the Use of Nuclear Power Sources in Outer Space, under the chairmanship of Sam A. Harbison (United Kingdom of Great Britain and Northern Ireland).

2. The Working Group recalled the objectives of its multi-year workplan for the period 2010-2015, adopted by the Subcommittee at its forty-seventh session, in 2010 (A/AC.105/958, annex II, para. 7):

(a) To promote and facilitate the implementation of the Safety Framework for Nuclear Power Source Applications in Outer Space by providing information pertinent to challenges faced by member States and international intergovernmental organizations, in particular those considering or initiating involvement in applications of nuclear power sources (NPS) in outer space;

(b) To identify any technical topics for, and establish the objectives, scope and attributes of, any potential additional work by the Working Group to further enhance safety in the development and use of space NPS applications. Any such additional work would require the approval of the Subcommittee and would be developed with due consideration for relevant principles and treaties.

3. The Working Group, at its informal and formal meetings, considered the following:

(a) Paper submitted by the United States of America on defining the organizational structure that implements a space nuclear power source mission application (A/AC.105/C.1/L.334);

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(b) Presentation submitted by the United Kingdom on space nuclear power systems, activities and programmes in the United Kingdom (A/AC.105/C.1/2014/CRP.19);

(c) Non-paper submitted by the Chair of the Working Group on possible next steps for the Working Group after completion of the current workplan;

(d) Presentation by the delegation of the United Kingdom on the status of safety and regulatory activities in the project Megawatt Highly Efficient Technologies for Space Power and Propulsion Systems for Long-duration Exploration Missions (MEGAHIT), funded by the European Commission under the Seventh Framework Programme for Research and Technological Development.

4. The Working Group noted that the time constraints of the current workplan would not allow any additional experiences with the implementation of the Safety Framework to be presented to the Working Group by any member States or international intergovernmental organizations.

5. Similarly, the Working Group noted that additional presentations could be provided by member States and international intergovernmental organizations with experience in space NPS development and applications to address the identified challenges.

6. The Working Group considered the non-paper by the Chairman and observed that more time was required to identify any technical topics for, and the objectives, scope and attributes of, any potential additional work by the Working Group to further enhance safety in the development and use of space NPS applications.

7. In accordance with its multi-year workplan (A/AC.105/958, para. 134, and annex II, para. 8), the Working Group reviewed the workplan under the arrangements for the year 2014, which required a determination, inter alia, whether the current workplan should be extended.

8. The Working Group, bearing in mind a number of considerations, including those reflected in paragraphs 4-6 above, recommended that the current multi-year workplan be extended to 2017 as follows:

2014 The Working Group will request the Secretariat (a) to invite member States and international intergovernmental organizations with experience in space NPS applications to provide further information in 2015 on their implementation of the Safety Framework and (b) to invite member States and international intergovernmental organizations considering or initiating involvement in space NPS applications to make presentations in 2015, during the meetings of the Working Group, summarizing their plans, progress to date and any challenges faced or foreseen in implementing the Safety Framework or specific elements thereof;

2015 Receive presentations, during the meetings of the Working Group, from member States and international intergovernmental organizations pursuant to the invitation extended in 2014. In its report to the Subcommittee, the Working Group will (a) summarize the presentations, (b) identify any significant challenges that should be addressed in presentations in 2016, and (c) discuss any technical topics

relevant to potential additional work by the Working Group to further enhance safety in the development and use of space NPS applications;

2016 Determine whether the current workplan should be extended; if it is not to be extended, prepare a draft report with recommendations for potential future work to promote and facilitate implementation of the Safety Framework;

2017 If the workplan has not been extended, finalize the report and recommendations.

9. The Working Group also requested the Secretariat to schedule all presentations to be given under the invitation referred to above during the first week of the fifty-second session of the Subcommittee, in 2015.

10. The Working Group agreed to hold a teleconference during the summer of 2014 in order to review the replies received to the invitation referred to in paragraph 8 above and to plan its activities for the rest of 2014.

11. At its [...] meeting, on [...] February 2014, the Working Group adopted the present report.